

Patent Claims

1. Slide valve (8) for hydraulic systems (1),

comprising a valve housing (9) having a passage channel (11) with a slide bore (14) extending in a direction transverse to said channel,

comprising a slide (18)
 - having a head (19) supported in the slide bore (14) so as to be movable in longitudinal direction and to be subjected to the fluid pressure prevailing in the passage channel (11), and
 - having a blocking portion (23) which is connected with head (19) and, as a result of this, can be adjusted with said head between a blocking position and a clearing position.
2. Slide valve as in Claim 1, characterized in that the head (19) is supported in a sealed manner in the slide bore (14).
3. Slide valve as in Claim 1, characterized in that the head (19) in the slide bore (14) divides a chamber (28) that is vented toward the outside.
4. Slide valve as in Claim 1, characterized in that, in order to pre-tension the slide (18), a compression spring (29) is provided, said spring's one end abutting against the head (19) and said spring's other end abutting against an abutment (17).
5. Slide valve as in Claim 4, characterized in that the abutment (17) is adjustable.
6. Slide valve as in Claims 3 and 4, characterized in that the compression spring (19) is arranged in the chamber (28).

7. Slide valve as in Claim 1, characterized in that the blocking portion is connected with the head via a pin portion (22) having a diameter that is smaller than the diameter of the blocking portion (23).
8. Slide valve as in Claim 1, characterized in that the blocking portion (23) is guided with little play in slide bore (14).
9. Slide valve as in Claim 1, characterized in that the blocking portion (23) divides a chamber (27) in the slide bore (14), and that at least one channel (25, 26, 34) is provided, said channel connecting the chamber (27) with the passage channel (11).
10. Slide valve as in Claim 1, characterized in that the blocking portion (23) has a diameter which is slightly smaller than the diameter of the section (15) of the slide bore (14) accommodating the head (19), so that the section (15) of the slide bore (14) defines a damping gap (32) with the blocking portion (23) when the blocking portion (23) is in blocking position.
11. Slide valve as in Claim 1, characterized in that the diameter of the slide bore (14) is at least as large as the diameter of the passage channel (11).
12. Hydraulic system comprising a hydraulic pump (2), comprising a load (3) and comprising at least two branches parallel to each other, as well as comprising at least one slide valve (8) as in Claim 1, said slide valve being arranged in one of the branches.